

PATENT ABSTRACTS OF JAPAN

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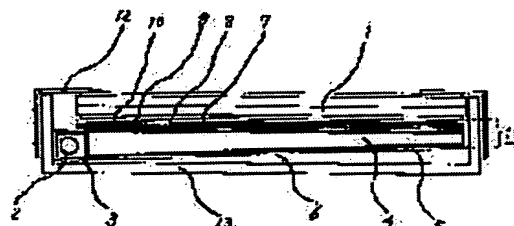
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(54) LIGHTING SYSTEM, MANUFACTURE THEREOF, AND LIQUID CRYSTAL DISPLAY DEVICE PROVIDED WITH IT

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent water absorption of a light guiding plate having a light source on one side face so as to provide a highly reliable lighting system by covering the front and back faces of the light guiding plate with a plurality of transparent synthetic resin and a plurality of optical sheets applied onto the resin.

SOLUTION: For a moisture-proof film 5 covering a light guiding plate 4 spreading light emitted from a line light source 2 onto the light emitting surface, an excellently light transmittable PC resin is used, and moisture-proof effect can be exhibited with its film thickness of 10 μm or less. In comparison with a PMMA resin of the light guiding plate 4, the PC resin has low light transmittance, however, it does not affect the characteristic of a lighting system 11 because of its thin film thickness when it is formed on the light guiding plate 4 surface. As to the area for formation of the moisture-proof film 5 on the light guiding plate 4, four side face areas in the light guiding plate 4 are small and water absorption from them is low, so that formation of the moisture-proof film 5 is not required in these faces. Consequently, water absorption preventing effect can be provided when the moisture-proof films 5 are formed only in the light emitting face with a large area and its back face. In this way, a conventional part can be used directly because the moisture-proof film 5 does not affect other components as it is a thin film.



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